

## REMARKS

This paper responds to the Office Action dated June 5, 2003.

5 **Definiteness.** The Examiner rejected claims 72, 88, 92, and 106 as indefinite. Each of those claims (as well as claim 102) has been amended to address the rejection. Reconsideration is requested.

**Art rejection.** In the office action, the Examiner rejects the claims as being unpatentable over a combination of U.S. patent No. 5,987,049 to Weingarten et al. ("Weingarten") and U.S. patent 6,363,090 to Wintner et al. ("Wintner").

10 Most importantly, the Examiner is reminded that an interview took place on March 6, 2003 in which the Examiner agreed that the references cited (Weingarten and Wintner) did not teach the invention as claimed in claims 72 and 88. In that interview the Examiner raised the definiteness issues addressed above.

The Examiner is further reminded that there are important reasons why one skilled in the art would not combine Weingarten and Wintner.

15 Weingarten discloses a passively mode-locked solid-state laser. Wintner discloses a thin-disk laser with means for Kerr lens mode locking.

20 It is well known that both passive mode-locking and thin-disk lasers as such has been known for some time. However, the combination is non-obvious, since the purpose of thin-disk lasers (namely a capability of working with high power) and properties of saturable absorber devices comprising semiconductors seem to contradict each other. Therefore, the person skilled in the art does not have any motivation to combine the teachings of Weingarten and of Wintner. In fact, Wintner's disclosure itself confirms this fact. In column 2, lines 20-27, Wintner writes:

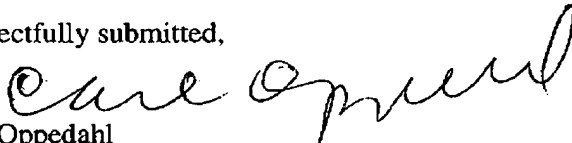
5 ... Rather, further progress was made with semiconductor-based saturable absorbers (SESAMs), which, however, have proven to be too short-lived for high-power laser systems with respect to their utility at powers over a few 100 mW. The non-linear optical methods are preferable, since they can be power-scaled by means of corresponding focusing of the beam and are not based on direct absorption of radiation.

10 Therefore, it is not true that it would have been obvious to a person skilled in the art at the time the invention was made to combine the laser system of Weingarten with Wintner's since the skilled person would judge from the cited passage in column 2 that combining these teachings is not suitable for obtaining a short-pulse thin-disk laser. Rather, the person skilled in the art would gather from Wintner's teaching that it is better to use non-linear optical methods such as Kerr Lens Modelocking (KLM) for mode-locking thin-disk lasers. Wintner thus teaches away from such a combination.

Rather, the invention is a truly non-obvious arrangement as defined in the independent claims.

Reconsideration is again respectfully requested.

Respectfully submitted,



Carl Oppedahl  
PTO Reg. No. 32,746  
Oppedahl & Larson LLP  
P O Box 5068  
Dillon, CO 80435-5068  
telephone 970-468-6600  
email oppedahl@patents.com